What is claimed is:

1. An apparatus to calculate remaining capacity of a battery comprising a current detection section to detect current flow in the battery, a remaining capacity calculation section to integrate the current value detected by the current detection section and calculate remaining capacity, and a memory section to store discharge current within a specified current range;

wherein in the case of current value detected by the current detection section in a specified current range, the remaining capacity calculation section calculates remaining capacity by operating on discharge current using a current value stored in the memory section rather than the value detected by the current detection section.

2. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein the remaining capacity calculation section is provided with an A/D converter to convert current detection section analog values to digital values, and the remaining capacity calculation section converts current detection section analog signals to digital values via the A/D converter and calculates remaining capacity.

3. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein the memory section stores a plurality of current ranges and a plurality of current values, and in the case of the value detected by the current detection section in a specified current range, the remaining capacity calculation section calculates remaining capacity with a current value stored in the memory section

4. An apparatus to calculate remaining capacity of a battery as recited in claim 1 characterized in that said specified current range and stored current value are set by information from the connected electrical equipment.

5. An apparatus to calculate remaining capacity of a battery as recited in claim 4 wherein the stored current value is specified according to operating conditions of the electrical equipment to which the battery is connected.

6. An apparatus to calculate remaining capacity of a battery as recited in claim 4 wherein the stored current value is specified according to operating mode of the electrical equipment to which the battery is connected.

7. An apparatus to calculate remaining capacity of a battery as recited in claim 4 wherein the stored current value is specified according to type of electrical equipment to which the battery is connected.

8. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein the electrical equipment to which the battery is connected is either a portable telephone, video camera, digital still camera, or laptop computer.

9. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein the electrical equipment to which the battery is connected is equipment which discharges via current pulses.

10. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein the electrical equipment to which the battery is connected is provided with a plurality of component blocks, and discharge current is specified by the blocks which are activated.

11. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein the battery is housed in a battery pack and the battery pack is provided with a memory section to store current values.

12. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein the electrical equipment to which the battery is attached is provided with a memory section to store current values.

13. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein a voltage detection circuit is provided to revise remaining battery capacity, battery voltage is detected by this voltage detection circuit, and remaining capacity calculated by the remaining capacity calculation section is revised.

14. An apparatus to calculate remaining capacity of a battery as recited in claim 1 wherein a communication processing section is provided to send remaining capacity values to electrical equipment to which the battery is attached, and remaining capacity calculated by the remaining capacity calculation section is sent to the electrical equipment by the communication processing section.

15. An apparatus to calculate remaining capacity of a battery as recited in claim 14 wherein the communication processing section sends remaining capacity values to the connected electrical equipment at fixed time intervals.

16. An apparatus to calculate remaining capacity of a battery as recited in claim 14 wherein the communication processing section sends remaining capacity values when a remaining capacity request signal is input from the connected electrical equipment.

17. An apparatus to calculate remaining capacity of a battery as recited in claim 14 wherein the communication processing section is provided with a memory section.